Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1-23. (cancelled).

24. (currently amended) A method of screening for an agonist or an antagonist of PTH receptor activity comprising:

(a) contacting cells with a test compound wherein said cells express a rΔNt polypeptide, wherein said cells comprise a polynucleotide having a nucleotide sequence selected from the group consisting of:

(i) a nucleotide sequence from ~~about~~ position 1 to ~~about~~ position 1320 in SEQ ID NO:1~~, wherein the extracellular amino-terminal ligand-binding domain is deleted~~;

(ii) a nucleotide sequence from ~~about~~ position 4 to ~~about~~ position 1320 in SEQ ID NO:1~~, wherein the extracellular amino-terminal ligand-binding domain is deleted~~;

(iii) a nucleotide sequence from ~~about~~ position 67 to ~~about~~ position 1320 in SEQ ID NO:1~~, wherein the extracellular amino-terminal ligand-binding domain is deleted~~;

(iv) a nucleotide sequence encoding the rΔNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136~~, wherein the extracellular amino-terminal ligand-binding domain is deleted~~; and

(v) a nucleotide sequence encoding the mature rΔNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136~~, wherein the extracellular amino-terminal ligand binding domain is deleted~~;

wherein said polypeptide comprises a deletion of the extracellular amino-terminal ligand binding domain of a PTH-1 receptor and

wherein said polypeptide increases intracellular cAMP levels when activated by PTH or PTH-related peptide and wherein said extracellular amino-terminal ligand binding domain has an amino acid sequence from ~~about~~ residue 26 to ~~about~~ residue 181 in wild-type PTH receptor;

(b) measuring cAMP accumulation in said cells; and

(c) determining whether said test compound is an agonist or an antagonist of PTH receptor activity;

wherein an agonist is identified as a compound that increases cAMP accumulation and an antagonist prevents cAMP accumulation.

25. (currently amended) A method of screening for an agonist or an antagonist of PTH receptor activity comprising:

(a) contacting cells with a test compound wherein said cells express a rΔNt polypeptide having an amino acid sequence selected from the group consisting of:

(i) the amino acid sequence from ~~about~~ position 1 to ~~about~~ position 435 in SEQ ID NO:2;

(ii) the amino acid sequence from ~~about~~ position 2 to ~~about~~ position 435 in SEQ ID NO:2;

(iii) the amino acid sequence from ~~about~~ position 23 to ~~about~~ position 435 in SEQ ID NO:2;

(iv) the amino acid sequence of the rΔNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136; and

(v) the amino acid sequence of the mature rΔNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136;

wherein said polypeptide comprises a deletion of the extracellular amino-terminal ligand binding domain of a PTH-1 receptor, said extracellular amino-terminal ligand binding domain having an amino acid sequence from ~~about~~ residue 26 to ~~about~~ residue 181 in wild-type PTH receptor;

(b) measuring cAMP accumulation in said cells; and

(c) determining whether said test compound is an agonist or an antagonist of PTH receptor activity;

wherein an agonist is identified as a compound that increases cAMP accumulation and an antagonist prevents cAMP accumulation.

26. (currently amended) A method of screening for an agonist or an antagonist of PTH receptor activity comprising:

(a) contacting cells with a test compound wherein said cells express a rΔNt polypeptide, wherein said cells comprise a polynucleotide having a nucleotide sequence selected from the group consisting of:

(i) a nucleotide sequence encoding the amino acid sequence from ~~about~~ position 1 to ~~about~~ position 435 in SEQ ID NO:2;

(ii) a nucleotide sequence encoding the amino acid sequence from ~~about~~ position 2 to ~~about~~ position 435 in SEQ ID NO:2;

(iii) a nucleotide sequence encoding the amino acid sequence from ~~about~~ position 23 to ~~about~~ position 435 in SEQ ID NO:2;

(iv) a nucleotide sequence encoding the rΔNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136; and

(v) a nucleotide sequence encoding of the mature rΔNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136;

wherein said polypeptide comprises a deletion of the extracellular amino-terminal ligand binding domain of a PTH-1 receptor, said extracellular amino-terminal ligand binding domain having an amino acid sequence from ~~about~~ residue 26 to ~~about~~ residue 181 in wild-type PTH receptor;

(b) measuring the biological response of cAMP accumulation in said cells; and

(c) determining whether said test compound is an agonist or an antagonist of PTH receptor activity;

wherein an agonist is identified as a compound that increases cAMP accumulation and an antagonist prevents cAMP accumulation.

27. (currently amended) A method of screening for an agonist or an antagonist of PTH receptor activity comprising:

(a) providing an iodinated test compound;

(b) contacting cells with said iodinated test compound wherein said cells express a rΔNt polypeptide, wherein said cells comprise a polynucleotide having a nucleotide sequence selected from the group consisting of:

(i) a nucleotide sequence from ~~about~~ position 1 to ~~about~~ position 1320 in SEQ ID NO:1~~, wherein the extracellular amino-terminal ligand binding domain is deleted~~;

(ii) a nucleotide sequence from ~~about~~ position 4 to ~~about~~ position 1320 in SEQ ID NO:1~~, wherein the extracellular amino-terminal ligand binding domain is deleted~~;

(iii) a nucleotide sequence from ~~about~~ position 67 to ~~about~~ position 1320 in SEQ ID NO:1~~, wherein the extracellular amino-terminal ligand binding domain is deleted~~;

(iv) a nucleotide sequence encoding the rΔNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136~~, wherein the extracellular amino-terminal ligand binding domain is deleted~~; and

(v) a nucleotide sequence encoding the mature rΔNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit

No. PTA-1136~~, wherein the extracellular amino-terminal ligand binding domain is deleted~~;

wherein said polypeptide comprises a deletion of the extracellular amino-terminal ligand binding domain of a PTH-1 receptor and

wherein said polypeptide increases intracellular cAMP levels when activated by PTH or PTH-related peptide and wherein said extracellular amino-terminal ligand binding domain has an amino acid sequence from ~~about~~ residue 26 to ~~about~~ residue 181 in wild-type PTH receptor; and

~~(b)~~ (c) determining whether said iodinated test compound competitively binds to said rΔNt polypeptide;

wherein an agonist is identified as a compound that increases cAMP accumulation and an antagonist prevents cAMP accumulation.

28. (currently amended) A method of screening for an agonist or an antagonist of PTH receptor activity comprising:

(a) providing an iodinated test compound;

(b) contacting cells with said iodinated test compound wherein said cells express a rΔNt polypeptide having an amino acid sequence selected from the group consisting of:

(i) the amino acid sequence from ~~about~~ position 1 to ~~about~~ position 435 in SEQ ID NO:2~~, wherein the extracellular amino-terminal ligand binding domain is deleted~~;

(ii) the amino acid sequence from ~~about~~ position 2 to ~~about~~ position 435 in SEQ ID NO:2~~, wherein the extracellular amino-terminal ligand binding domain is deleted~~;

(iii) the amino acid sequence from ~~about~~ position 23 to ~~about~~ position 435 in SEQ ID NO:2~~, wherein the extracellular amino-terminal ligand binding domain is deleted~~;

(iv) the amino acid sequence of the rΔNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136~~, wherein the extracellular amino-terminal ligand binding domain is deleted~~; and

(v) the amino acid sequence of the mature rΔNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136~~, wherein the extracellular amino-terminal ligand binding domain is deleted~~;

wherein said polypeptide comprises a deletion of the extracellular amino-terminal ligand binding domain of a PTH-1 receptor and

wherein said polypeptide increases intracellular cAMP levels when activated by PTH or PTH-related peptide and wherein said extracellular amino-terminal ligand binding domain has an amino acid sequence from ~~about~~ residue 26 to ~~about~~ residue 181 in wild-type PTH receptor; and

~~(b)~~ (c) determining whether said iodinated test compound competitively binds to said rΔNt polypeptide;

wherein an agonist is identified as a compound that increases cAMP accumulation and an antagonist prevents cAMP accumulation.

29. (currently amended) The method of claim 24, wherein said cells comprise a polynucleotide having a nucleotide sequence from ~~about~~ position 1 to ~~about~~ position 1320 in SEQ ID NO:1.

30-31. (cancelled).

32. (currently amended) The method of claim 25, wherein said cells express a rΔNt polypeptide having an amino acid sequence from ~~about~~ position 1 to ~~about~~ position 435 in SEQ ID NO:2.

33-34. (cancelled).

35. (currently amended) The method of claim 26, wherein said cells comprise a polynucleotide which encodes a polypeptide having the amino acid sequence from ~~about~~ 1 to ~~about~~ position 435 in SEQ ID NO:2.

36-37. (cancelled).

38. (currently amended) The method of claim 27, wherein said cells comprise a polynucleotide having a nucleotide sequence from ~~about~~ position 1 to ~~about~~ position 1320 in SEQ ID NO:1.

39-40. (cancelled).

41. (currently amended) The method of claim 28 wherein said cells express a rΔNt polypeptide having an amino acid sequence from ~~about~~ position 1 to ~~about~~ position 435 in SEQ ID NO:2.

42-43. (cancelled).